

MATERIAL SAFETY DATA SHEET

Date Revised: June 2002

Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act and shall not be used for any other purpose. T. Christy Enterprises, Inc. urges the customers receiving this Material Safety Data Sheet to study it carefully to become aware of the hazards, if any, of the product involved. In the interest of safety, you should notify your employees, agents and contractors of the information on this sheet.

SECTION I

MANUFACTURER'S NAME:

T. Christy Enterprises, Inc.

ADDRESS:

655 East Ball Road, Anaheim, CA 92805-5910

(714) 507-3300 FAX: (714)507-3310

Transportation Emergencies:

INFOTRAC: (800) 535-5053

Medical Emergencies: (800)777-6476

CHEMICAL NAME and FAMILY

Solvent Cement for PVC Plastic Pipe

Mixture of PVC Resin and Organic Solvents

TRADE NAME: *Christy's*® RED HOT BLUE Low VOC GLUE®

FORMULA: Proprietary

SECTION II - HAZARDOUS INGREDIENTS

None of the ingredients below are listed as carcinogens by IARC, NTP or OSHA

	CAS#	APPROX %	ACGIH-TLV	ACGIH-STEL	OSHA-PEL	OSHA-STEL (A)	AEI (B)	STEL
Polyvinyl Chloride Resin (PVC)	NON/HAZ		N/A		N/A			
Tetrahydrofuran (THF)**	109-99-9	30-45	200 PPM	250 PPM	200 PPM	250 PPM	25 PPM	75 PPM
Methyl Ethyl Ketone (MEK)	78-93-3	18*	200 PPM	300 PPM	200 PPM	300 PPM		
Cyclohexanone	108-94-1	6-20	25 PPM Skin		25 PPM Skin			
N-Methylpyrrolidone	872-50-4	4*	N/E		N/E			

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**Title III Section 313 Supplier Notification; This product contains toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and of 40CFR372. This information must be included in all MSDS'S that are copied and distributed for this material.

(A) Dupont's Acceptable Exposure Limit (AEL) guidelines for 8 hour and 12 hour TWA, (B) Dupont's recommended STEL for 15 minute TWA.

**Information found in a report from the National Toxicology Program (NTP) on an inhalation study in rats and mice suggests that Tetrahydrofuran (THF) can cause tumors in animals. In the study the rats and mice were exposed to THF vapor levels up to 1800 PPM for two years (their lifetime), 6 hours/day, 5 days/week. Test results showed evidence of liver tumors in female mice and kidney tumors in male rats. No evidence of tumors was seen in female rats and male mice. There is no data linking Tetrahydrofuran exposure with cancer in humans.

BULK SHIPPING INFORMATION / CONTAINERS LARGER THAN ONE LITER

DOT Shipping Name: Adhesive
 DOT Hazard Class: 3
 Identification Number: UN 1133
 Packaging Group: II
 Label Required : Flammable Liquid

SHIPPING INFORMATION FOR CONTAINERS LESS THAN ONE LITER

DOT Shipping Name: Consumer Commodity
 DOT Hazard Class: ORM-D

SPECIAL HAZARD DESIGNATIONS

HEALTH:	2	2	0 - MINIMAL
FLAMMABILITY:	3	3	1 - SLIGHT
REACTIVITY:	0	1	2 - MODERATE
PROTECTIVE:			3 - SERIOUS

EQUIPMENT: H 4-SEVERE

H=Eye, Hand/Skin, Respiratory protection and Imperable Apron

SECTION III - PHYSICAL DATA

APPEARANCE Blue medium syrupy liquid	ODOR Ethereal	BOILING POINT (°F/°C) 151°F (67°C)Based on first boiling component: THF
SPECIFIC GRAVITY @73°F ± 3.6°F(20°C±2°) Typical 0.964 ± 0.040	VAPOR PRESSURE (mm Hg.) 143 mm Hg. based on first boiling component, THF @ 20°C	PERCENT VOLATILE BY VOLUME(%) Approx: 80 - 90%
VAPOR DENSITY (Air =1) 2.49	EVAPORATION RATE (BUAC = 1) >1.0	SOLUBILITY IN WATER Solvent portion completely soluble in water; Resin portion separates out.

VOC STATEMENT: VOC as manufactured: 760 Grams/Liter. Maximum VOC emission per SCAQMD Rule 1168, Test Method 316A: 510 Grams/Liter.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT -4°F (-20°) T.C.C. Based on THF	FLAMMABLE LIMITS (PERCENT BY VOLUME)	LEL 2.0	UEL 11.8
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FIRE EXTINGUISHING MEDIA Ansul "Purple K" potassium bicarbonate dry chemical, any appropriately sized ABC dry chemical, carbon dioxide, or foam extinguisher can be used for small fires. Use of a water fog by trained personnel can extinguish small/large fires.

SPECIAL FIRE FIGHTING PROCEDURES

Evacuate enclosed areas, stay upwind. Close or confined quarters require self-contained breathing apparatus, positive pressure hose masks or airline masks. Use water spray to cool containers, to flush spills from source of ignition and to disperse vapors.

UNUSUAL FIRE AND EXPLOSION HAZARDS Fire hazard because of low flash point and high volatility. Vapors are heavier than air and may travel to source of ignition at or near ground or lower levels and flash back.

SECTION V - HEALTH HAZARD DATA**PRIMARY ROUTES OF ENTRY:** x Inhalation x Skin Contact Eye Contact Ingestion**EFFECT OF OVEREXPOSURE****ACUTE:** Inhalation: Severe overexposure may result in nausea, dizziness, headache. Can cause drowsiness, irritation of eyes and nasal passages.**Skin Contact:** Skin irritant. Liquid contact may remove natural skin oils resulting in skin irritation. Dermatitis may occur with prolonged contact.**Skin Absorption:** Prolonged or widespread exposure may result in the absorption of harmful amounts of material.**Eye Contact:** Overexposure may result in severe eye injury with corneal or conjunctival inflammation on contact with the liquid. Vapors slightly uncomfortable**Ingestion:** Moderately toxic. May cause nausea, vomiting, diarrhea. May cause mental sluggishness.**CHRONIC:** In animal studies in rats and mice, N-MP was embryotoxic by the oral and intraperitoneal routes at very high dose levels. In a dermal exposure study with rats, N-MP was only embryotoxic at the high dose levels. This effect was attributed to maternal toxicity.**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Not known**EMERGENCY AND FIRST AID PROCEDURES****Inhalation:** If overcome by vapors, remove to fresh air and if breathing stopped, give artificial respiration. If breathing is difficult, give oxygen. Call doctor.**Eye Contact:** Flush eyes with plenty of water for 15 minutes and call a doctor.**Skin Contact:** Remove contaminated clothing and shoes. Wash skin with plenty of soap and water for at least 15 minutes. If irritation develops, get medical attention.**Ingestion:** Give 1 or 2 glasses of water or milk. Do not induce vomiting. Call physician or poison control center immediately.**SECTION VI - REACTIVITY**

STABILITY	UNSTABLE		CONDITIONS TO AVOID Moisture - compound is hygroscopic
	STABLE	X	

INCOMPATIBILITY**(MATERIALS TO AVOID)** Strong acids, oxidizing agents**HAZARDOUS DECOMPOSITION PRODUCTS**

Oxides of nitrogen and carbon may form under burning conditions.

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID N/A
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

Eliminate all ignition sources. Avoid breathing of vapors. Keep liquid out of eyes. Flush with large amount of water. Contain liquid with sand or earth.

Absorb with sand or non-flammable absorbent material and transfer into steel drums for recovery or disposal. Prevent liquid from entering drains.

WASTE DISPOSAL METHOD

Follow local, State and Federal regulations. Incinerate or bury as a solid after absorption on cementation in a licensed facility. Do not discharge into waterways or sewer systems.

SECTION VIII - SPECIAL PROTECTION INFORMATION**RESPIRATORY PROTECTION (Specify type)**

If vapors or mists are generated, wear a NIOSH/MSHA approved organic vapor/mist respirator or an air supplied respirator as appropriate. Use only SCBA for emergencies

VENTILATION

Use only with adequate ventilation. Provide sufficient ventilation in volume and pattern to keep contaminants below applicable exposure limits set forth in Section II. Use only explosion proof ventilation equipment.

PROTECTIVE GLOVES

Butyl rubber or Fep teflon gloves

EYE PROTECTION

Splashproof chemical goggles

OTHER PROTECTIVE EQUIPMENT AND HYGIENIC PRACTICES

Impervious apron and a source of running water to flush or wash the eyes and skin in case of contact.

SECTION IX - SPECIAL PRECAUTIONS**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**

Store in the shade between 40°F - 110°F. Keep away from heat, sparks, open flame and other sources of ignition. Avoid prolonged breathing of vapor. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Train employees on all special handling procedures before they work with this product.

OTHER PRECAUTIONS

Follow all precautionary information given on container label, product bulletins and our solvent cementing literature. All handling equipment should be electrically grounded.

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.